

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Surinder Sachar (Reg. No. 34,423) on 2nd April 2008.

This application has been amended as follows:

IN THE CLAIMS

Cancel claim 10, 21, 22 and 25.

Replace claims 1, 11 – 12 and 23 – 24.

Claim 1:

A management mediating device, comprising:
a management system communication unit making a connection to a management system outside a fire wall from inside the fire wall, and receiving a command from the management system;

a storage unit storing a connection schedule of the management system communication unit inside the firewall to make the connection to the management system outside the firewall;

an instructing unit that, in accordance with the connection schedule, instructs the management system communication unit to start a connection operation to make the connection to the management system, wherein after the management system communication unit makes the connection to the management system, and transmits a command check to the management system, the management system communication unit receives the command from the management system in response to the transmitted command check; and

a processor performing a process in accordance with the received command, the process including to send a test signal to a hardware resource of an image forming apparatus to obtain data indicating a usage state of the image forming apparatus in a local area, the data indicating the usage state including information in response to the test signal from the hardware resource;

the management system communication unit transferring the obtained data to the management system at a time the connection schedule indicates to connect to the management system.

Claim 11:

A computer readable storing medium that stores a management mediating program that is used at a management mediating device, wherein the management mediating device includes a first communication unit, a processor, a second communication unit, a storage unit that stores a connection schedule for the management mediating device inside the

firewall to make a connection to a management system outside the firewall, and an instructing unit,

the management mediating program comprising:

a first communication program code that causes the first communication unit to make the connection to the management system via the Internet, and to receive a command from the management system, wherein the management mediating device is positioned at an inside of a fire wall, and the management system is positioned at an outside of the fire wall;

an instructing program code that, in accordance with the connection schedule, instructs the management system communication unit to start a connection operation to make the connection to the management system, wherein after the management system communication unit makes the connection to the management system and transmits a command check to the management system, the management system communication unit receives the command from the management system in response to the transmitted command check;

a processing program code that causes the processor to perform a process in accordance with the command, the process including to send a test signal to a hardware resource of an image forming apparatus to obtain data indicating a usage state of the image forming apparatus in a local area, the data indicating the usage state including information in response to the test signal from the hardware resource; and

a second communication program code that causes the second communication unit to transfer the obtained data to the management system at a time the connection schedule indicates to connect to the management system.

Claim 12:

An image processing apparatus that comprises a hardware resource including at least one of a displaying unit, a printing unit, a scanner unit, a facsimile unit, a hard disk, an imaging unit and a network interface, and provides a service including at least one of a printing service, a copying service, and a facsimile service,

the image processing apparatus further comprising:

at least one application that performs a particular process for the service;

a management system communication unit making a connection to a management system from an inside of a fire wall, and receiving a command from the management system positioned at an outside of the fire wall, and to transmit data to the management system;

a storage unit storing a connection schedule of the management system communication unit inside the firewall to make the connection to the management system outside the firewall;

an instructing unit that, in accordance with the connection schedule, instructs the management system communication unit to start a connection operation to make the connection to the management system, wherein after the management system communication unit makes the connection to the management system and transmits a command check to the management system, the management system communication unit receives the command from the management system in response to the transmitted command check;

a processor performing a process in accordance with the command, the process including to send a test signal to the hardware resource of the image processing apparatus to obtain data indicating a usage state of an image forming apparatus in a local area, the

data indicating the usage state including information in response to the test signal from the hardware resource;

the management system communication unit transferring the obtained data to the management system at a time the connection schedule indicates to connect to the management system.

Claim 23:

A remote management system in which a management object system is managed by communication between a management system and a management mediating device,

wherein the management mediating device comprises:

a management system communication unit making a connection to the management system outside a fire wall from inside the fire wall, and receiving a command from the management system;

a storage unit storing a connection schedule of the management system communication unit inside the firewall to make the connection to the management system outside the firewall;

an instructing unit that, in accordance with the connection schedule, instructs the management system communication unit to start a connection operation to make the connection to the management system, wherein after the management system communication unit makes the connection to the management system and transmits a command check to the management system, the management system communication unit receives the command from the management system in response to the transmitted command check; and

a processor performing a process in accordance with the received command, the process including to send a test signal to a hardware resource of an image forming apparatus to obtain data indicating a usage state of the image forming apparatus in a local area, the data indicating the usage state including information in response to the test signal from the hardware resource;

the management system communication unit transferring the obtained data to the management system at a time the connection schedule indicates to connect to the management system;

and wherein the processor changes the connection schedule stored in the storage unit in accordance with a schedule changing command received from the management system.

Claim 24:

A remote management method of managing a management object system by communication between a management mediating device and a management system, the method comprising:

a) the management mediating device making a connection, via the Internet, from inside a fire wall to the management system outside the fire wall, the connection being made based on a stored connection schedule in the management mediating device inside the firewall;

b) after the management mediating device makes the connection to the management system, in accordance with the connection schedule, and transmits a command check to the

management system, receiving a command from the management system by using the connection in response to the transmitted command check;

c) performing a process in accordance with the command to send a test signal to a hardware resource of an image forming apparatus to obtain data indicating a usage state of

the image forming apparatus in a local area, the data indicating the usage state including information in response to the test signal from the hardware resource;

d) transferring the obtained data to the management system at a time the connection schedule indicates to connect to the management system; and

e) when the command is a schedule changing command, changing the stored connection schedule in accordance with the schedule changing command.

Allowable Subject Matter

Claims 1 – 9, 11 – 20 and 23 – 24 are allowed.

The following is an examiner's statement of reasons for allowance:

The above mentioned claims are allowable over prior arts because the CPA (Cited Prior Art) of record fails to teach or render obvious the claimed limitations in combination with the specific added limitations, as recited in independent claims 1, 11 – 12 and 23 – 24 (& associated dependent claims).

The prior arts fail to teach or suggest a communication mechanism for a management mediating device that comprises a management system communication unit making a connection to a management system outside a fire wall from inside the fire wall based upon a stored connection schedule and the management system communication unit to start a

connection operation to make the connection to the management system, in accordance with the connection schedule, wherein after the management system communication unit makes the connection to the management system, and transmits a command check to the management system, the management system communication unit receives the command from the management system in response to the transmitted command check; and a processor performing a process specifically in accordance with the received command, the process including to send a test signal to a hardware resource of an image forming apparatus to obtain data indicating a usage state of the image forming apparatus in a local area, the data indicating the usage state including information in response to the test signal from the hardware resource; the management system communication unit transferring the obtained data to the management system at a time the connection schedule indicates to connect to the management system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2131

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/Longbit Chai/

Longbit Chai Ph.D.

Primary Examiner, Art Unit 2131

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